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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,200	10/19/2001	Norman Ken Ouchi		2842

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EXAMINER	
CHOI, PETER H	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/036,200	OUCHI, NORMAN KEN	
	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a first office action upon examination of application number 10/036,200. Claims 1-20 are pending in the application and have been examined on the merits discussed below.

Abstract

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is currently 271 words, but may not exceed 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 2 and 17 are objected to because of the following informalities:

- although acronyms are acceptable, each acronym should be spelled out in its entirety at least at its first occurrence [ERP → Enterprise Resource Planning (ERP)].

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Several major problems are found throughout claims 1-20. It is awkward to simultaneously claim a workflow route and a workflow system, as in claim 1. Similarly, it is awkward to simultaneously claim an object, program and system together, as in claim 13. Claim 16 simultaneously cites a process and system.

It should be noted that objects are more commonly claimed in the form of computer program product claims; therefore, a more typical format for claiming the code would be as follows, for example: "object based workflow route stored in a computer-readable medium that, when executed, causes a processor to perform...".

Furthermore, claims 1-20 seem to claim both a system and a method. It is unclear whether the Applicants intend to claim a set of system claims or a set of method claims. The problems arising from such hybrid claims are summarized in the following excerpt from a Board of Patent Appeals and Interference decision concerning hybrid claims:

> [2] As we noted above, the second paragraph of 35 USC 112 requires a claim to particularly point out and distinctly claim the subject matter which the appellant regards as his invention. However, the "invention" referred to in the second paragraph of 35 USC 112 is also subject to the requirements of 35 USC 101. This section of the statute requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, *or* composition of matter, *or* any new and useful improvement thereof" (emphasis added). In the situation before us on appeal, it is clear that appellant's independent claim 2 is intended to embrace or overlap *two* different statutory classes of invention set forth in 35 USC 101. In our view, a claim of this type is precluded by the express language of 35 USC 101 which is drafted so as to set forth the statutory classes

of invention in the alternative only. Further, we must agree with the examiner that a single claim which purposes to be both a product or machine and a process is ambiguous and is properly rejected under 35 USC 112, second paragraph, for failing to particularly point out and distinctly claim the invention. While the Examiner has only set forth rejection of the appealed claims as being under 35 USC 101 in supporting his position that appellant's claims on appeal are ambiguously drafted and indeterminate in scope. *Ex parte Lyell*, USPQ. 2d (Board of Aptent Appeals and Interferences) 1548, 1551.

The scope of the claims is not clear insofar as there is no structure recited in the body of the claims that would enable the functionality of the claims. For example, claim 1 cites a listing of elements, but does not provide any functionality for said elements, or the necessary structure to enable the listed elements to be performed, realized, or executed.

The Examiner requests clarification as to what the applicant regards as the invention. Claim 1 cites workflow routes and a workflow system. Claim 13 cites a work center program, a shop floor workflow system, and a work center object. Claim 16 cites a connection process and workflow system. For examination purposes, the Examiner has assumed that claim 1 is a workflow system claim *comprising* workflow routes (emphasis added). Similarly, claim 13 has been interpreted to be a shop floor workflow

system *comprising* a work center program and a work center object. Claim 16 has been interpreted to be a workflow system *comprising* a connection process.

The disclosure does not clearly define the phrase "route", therefore the phrase as claimed is vague and indefinite. A "route" can be a generic template, or a specific instance.

The disclosure does not clearly define the phrase "object based workflow" as cited in claims 1-12, therefore the phrase as claimed is vague and indefinite. The "object based workflow" is not claimed as embodied in computer-readable media. As such that it is not embodied as software or in computer-readable media, a plurality of "objects" may be used, for example, a document, or another workflow.

The disclosure does not clearly define the phrase "network" as cited in claims 13. A "network" is defined as a system of lines or channels that cross or intersect; a complex, interrelated group or system, an extended group of people with similar interests or concerns who interact and remain in informal contact for mutual assistance and support, a group or system of electronic components and connecting circuitry designed to function in a specific manner to share information. This phrase is not clearly defined because the "network" in claim 13 is not positively correlated as being embodied electronically (i.e., a series of networked computers, as opposed to a network

of individuals). For examination purposes, the Examiner has assumed that the claimed network refers to an electronic embodiment. Correction is required.

5. Claims 9-10 recites the limitation "the barcode" in line 2. There is insufficient antecedent basis for this limitation in the claim. The object cited in claim 1 does not mention the existence of a bar code or other identifier.

6. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims1-20 are directed towards “an objected based workflow route”. All of the recited steps are performed entirely in the mind of a human user without any real-world

effect and are therefore merely abstract ideas. The claim merely comprises of a listing of elemental components, thereby rendering the claimed invention non-statutory for failure to recite a final result that is concrete and tangible. In other words, there is no real-world application that brings the recited abstract ideas outside of the mind of a human user to have an actual effect in the real world; there is no result tied to the physical world. In order to produce a tangible result, the claimed invention must produce a real-world result.

Claims 1-20 recite multi-step workflow routes comprising object-based encapsulated route segments adapted to report the status of an object, and are interconnected by a plurality of input/output links. There is no real-world effect because the claimed invention is just a concept and lacks any structure or functionality that enables the listed elements to be performed, executed, or realized. Therefore, claims 1-20 yield no tangible result.

Analogously, "facilitating" a method that is already deemed to lack usefulness, concreteness, and tangibility by merely storing the related abstract ideas in a data store and/or transmitting a description of these abstract ideas does not remedy the § 101 rejection.

Claim 1 recites an "objected based workflow route" along with a workflow system. Claim 13 recites a "work center object", along with a work center program and shop

floor workflow system. Claim 16 recites a "connection process" along with a workflow system. These claims are directed to neither a "process" nor an "product", but rather embraces or overlaps multiple different statutory classes of invention set forth in 35 U.S.C 101.

Furthermore, software, programming, instructions, or code not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in a computer. When such descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases.

In summary, claims 1-20 are deemed to be non-statutory for failure to produce a useful, concrete, and tangible result. Appropriate correction is required.

8. Claims 1-20 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a

manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Because claims 1-20 are so indefinite, no art rejection is warranted as substantial guesswork would be involved in determining the scope and content of these claims. See In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962); Ex parte Brummer, 12 USPQ 2d, 1653, 1655 (BdPatApp&Int 1989); and also In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). Prior art pertinent to the disclosed invention is nevertheless cited and applicants are reminded they must consider all cited art under Rule 111(c) when amending the claims to conform with 35 U.S.C. 112.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Randell (U.S Patent #5,745,687) teaches a workflow system that automates the definition and execution of a procedure that can e carried out according to defined rules among agents.

Hsu et al. (U.S Patent #5,581,691) teaches a work flow management system and method. A work flow description database represents long running work flows as a set of work nits, called steps, with information flows therebetween. The description database defines each step's input and output signals, an application program associated with the step, and criteria for selecting a resource to execute the step. A work flow controller controls the process of executing instances of each defined type of work flow.

Akifuji et al. (U.S Patent #6,853,974) teaches a workflow system capable of simultaneously executing a plurality of business processes. Exception conditions are transferred to a status watcher, and when there is a change meeting a predetermined exception condition, transfers the change to a user retrieval unit.

Bacon et al. (U.S Patent #6,430,538) teaches a workflow management system and method including workflow activities to be performed. A scheduler interprets the workflow definition and facilitates the scheduling and routing of work items in the system.

Beck et al. (U.S Patent #6,370,508) teaches an interface engine for managing business processes within a multimedia communication center. A plurality of code sets are related by pre-requisite status, creating a required order of progression for the process.

Gabbita et al. (U.S Patent #6,349,238) teaches a system and method for managing the workflow for processing service orders among a variety of organizations within a telecommunications company. The system and method coordinates all of the tasks and activities related to order processing among the various entities within the telecommunications company. Workflows are used to model business procedures, and each workflow comprises a plurality of workflow steps. Business process models are depicted as workflow diagrams.

Igarashi et al. (U.S Patent #6,154,848) teaches a maintenance system automatically executing processing jobs according to a defined workflow. The system is operable with a network.

Chaar et al. (U.S Patent #5,960,404) teaches a mechanism for heterogeneous workflow execution across a network. Workflow systems interact with each other as peers using this mechanism by sending workflow execution requests, workflow script templates, and workflow environments to each other.

Caruso et al. (U.S Patent #5,848,271) teaches a process and apparatus for controlling with workflow in a multi-user computing system. A user selects an activity from a list of available activities. The event then performs a decision making process to determine which next steps are to be logically selected based upon predefined

conditions. The subsequent user(s) responsible for performing the next activity or task in the predefined sequence of activities is determined. Upon completion of each activity, the process is repeated until each piece of information is pushed entirely through the organizations predefined information flow path.

Lee et al. (U.S Patent #5,089,970) teaches an integrated manufacturing system operative for managing the distribution to a factory floor as well as throughout a factory of the information that is necessary to effectuate the production of products on the factory floor.

Flores et al. (U.S Patent #6,073,109) teaches a computerized method and system for managing business processes using linked workflows. The system notifies users that steps need to be started or completed, providing users with the proper tools and information to complete a task. The system manages proper reminders, alerts, and follow-ups to keep the process moving and integrates with the organization's existing business systems.

Lilly et al. (U.S Patent #6,801,820) teaches a computerized system, method and apparatus for scheduling work orders in a manufacturing process. Each work order to be scheduled specifies a set of operations to be performed using a plurality of resources and materials. The work order information includes a release date for the work order, a want date for the work order, operations information, and material requirements

information. The operations information includes the identity and sequence of operations to be performed for the work order, the identity of the resources needed to perform each operation, a minimum resource capacity needed to perform each operation, and the time needed to perform the operation.

Beasley et al. (U.S Patent #4,827,423) teaches a computer integrated manufacturing system. The Computer Integrated Manufacturing System includes a plurality of levels of computer control which organize and disseminate the information for controlling shop floor level systems. Scheduling data and data relating to process, product, and material specifications are generated in a computer system and down loaded as needed to lower level computer controlling the shop floor processes. The computers on the upper and lower levels are capable of communication with each other as needed to pass information back and forth.

Jones et al. (U.S Patent #6,584,489) teaches a method and system for scheduling the use of a computer system resource using a resource planner and resource provider. In response to received requests, the method and system determines its course of action.

Berg et al. (U.S Patent 5,999,911) teaches a method and system for managing workflow, providing computer-assisted, graphical tools for defining and managing complex processes in terms of a workflow, which includes a number of steps having

step encapsulations and dependency relationships. Step encapsulations define the work to be performed by a step in a work flow. The dependency relationships represent the conditions that must be satisfied before a step can be performed. The workflow system manages the state of a workflow including the state of steps and data, and makes the workflow and its related data accessible to multiple users.

Bengston (U.S Patent 6,728,947) teaches a workflow distributing apparatus and method for automatically executing process steps by processing devices transmitted over a communication channel, using a workflow file to specify the process steps. Devices are used to edit, initiate, and observe workflow execution. Editing comprises selecting process steps, executing parameter selection software supplied by the processing device, and drawing links between icons.

Chatterjee et al. (U.S Patent #5,774,661) teaches a rule engine interface for a visual workflow builder. The invention automatically generates and controls workflows that include a number of processes. The workflow server computer has an object repository and rule engine. The client computer has a workflow builder structure and a graphical user interface. Workflows are constructed using modules, and interconnecting step definitions, routes, and rule condition builders.

Muehlen et al.'s "Workflow Process Definition Language – Development and Directions of a Meta-Language for Workflow Processes" (reference 1-U) teaches the

use of meta-languages for workflow and process modeling. Input-Process-Output based languages describe a workflow as a directed graph of activities. Language Action approaches model a workflow as an interaction between (at least) two participants that follow a structured cycle of conversation. Constraint-based modeling languages resemble traditional programming languages.

Mohan (reference 1-V) teaches recent trends in workflow management. Mohan refers to a plurality of software packages and systems employing workflow management techniques. Workflow is embedded in many general purpose business application packages by companies like Baan, Oracle, PeopleSoft and SAP. Web-based and distributed workflow systems are available, as are Ad Hoc Workflows, Process Modeling, Metamodel, Groupware, and OO Architecture. Mohan also discusses a plurality of research projects and organizations developing workflow management.

Wirtz et al.'s "The OcoN Approach to Workflow Modeling in Object-Oriented Systems" (reference 1-W) teaches that workflow management is an important technology for modeling and controlling the execution of business processes in commercial applications, by providing the functionality to model the automated parts of business processes and the organizational and technical environments in which they are expected to be executed. The internal, functional, operational, behavioral, informational, and organizational perspectives are described, as are the benefits of object-oriented workflow modeling.

The Workflow Management Colaition's "Interface 1: Process Definition Interchange Process Model" (reference 1-X) teaches that workflow process definitions can be generated by a build-time tool, and is capable of interpretation in different workflow run-time products. A workflow process definition meta-data model has been established, the specifics of which are disclosed within.

David Hollingsworth's "Workflow Reference Model" (reference 2-U) teaches workflow systems, workflow reference models, and discloses that many software vendors have workflow management products available that involve workflow management technology. Hollingsworth teaches the concepts, terminology, general structure of a workflow management system, its major functional components, and the interfaces and information interchange flows between them.

Microsoft Corporation's "Orchestrating Business Processes with Microsoft BizTalk Server 2000" (reference 2-v) teaches the incorporation of workflow management concepts in the BizTalk Server 2000 application. BizTalk Messaging Services and Orchestration Services can be used to model business processes. BizTalk uses object-oriented modules to model such systems.

Microsoft Corporation's "BizTalk Orchestration – A Technology for Orchestrating Business Interactions" (reference 2-W) teaches how the BizTalk software package can be used to design, build, and execute dynamic business interactions.

Microsoft Corporation's BizTalk Server 2000 Documentation Guide (1999-2000) (reference 2-X) is a documentation guide for the BizTalk Server 2000 application. Featured sections discussing BizTalk Server features, tutorials, and services are enclosed. Also enclosed is a listing of design shapes, flowchart shapes, implementation shapes, and communication shapes.

Microsoft Corporation's Visio 2000 Documentation Guide (reference 3-U) is a documentation guide for the Vision 2000 application. Visio is the fundamental basis used in implementation by BizTalk Server 2000. Visio is an object-oriented tool that can be used to create and share business diagrams for projects and processes. The user can create Visio templates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC

Peter Choi
Examiner
Art Unit 3623

November 18, 2005

Susanna Diaz
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